

Libraries of Silicon and Fiber Optics

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Thinking Machines Corporation
May 30, 1992

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Wide Area Information Servers Applications

- PeatMarwick DowJones Apple Thinking Machines Joint Project
- U.S. Geological Survey
- Network Services
- Thinking Machines Corporation
- Columbia Law Library
- WAIS on Internet

Future Libraries

- Reading Rooms
- Corporate Libraries

Peat Marwick / Dow Jones / Apple / Thinking Machines Joint Project

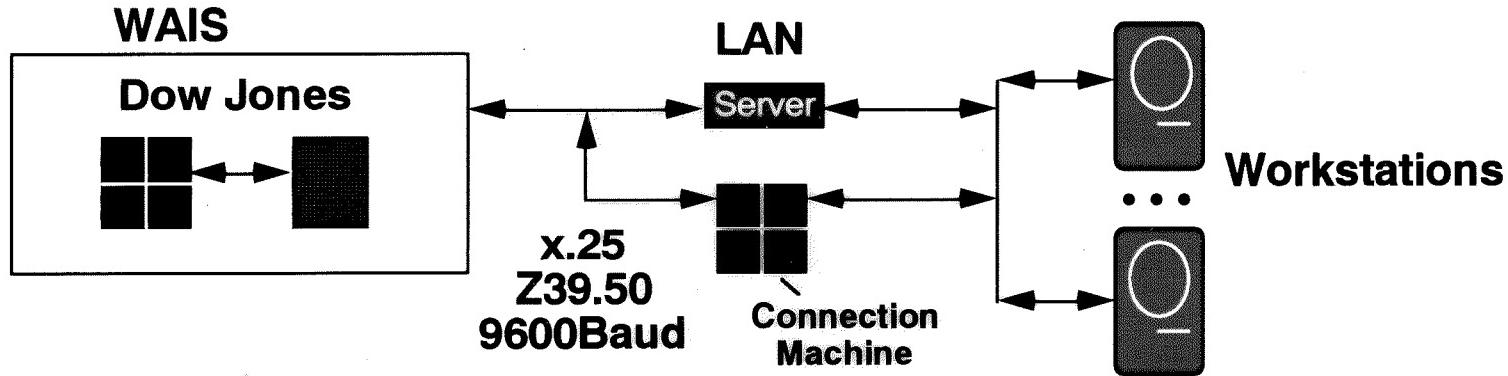
Problem:

**Accountants and Tax Consultants need
access to up-to-date information from
inside the company and outside.**

Answer:

**Use a wide area network with WAIS
servers to allow easy access to personal,
corporate and published information.**

Peat Marwick System Structure

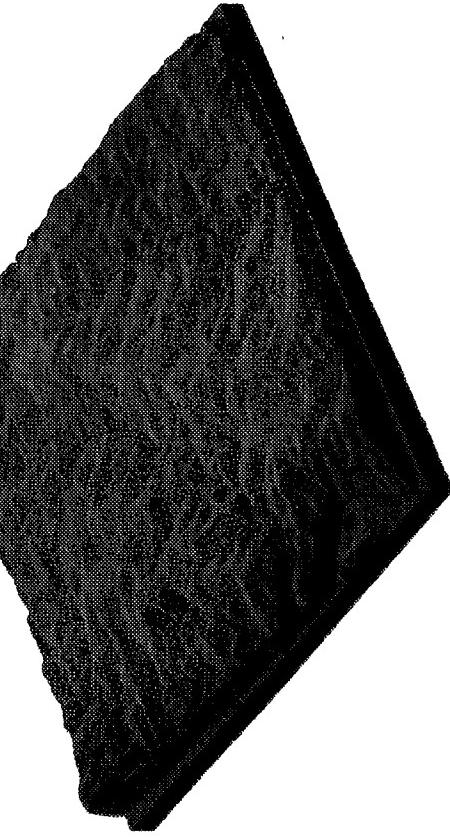


Operations:
Archiving
Queries
Retrieval
IR Type:
Broadcast
Query by Example
Databases:
Wall St Journal
Barron's
400 Business Mags

CM:
Operations:
Queries
IR Type:
enhanced relevance
feedback
Databases:
DowVision and memo's,
mail, word processor files

Mac:
Operations:
Human Int
Retrieval
Queries
"Caching" Docs
User Profiles
IR Type:
Query by example
Databases:
Personal Text
Cached data

U.S. Geological Survey



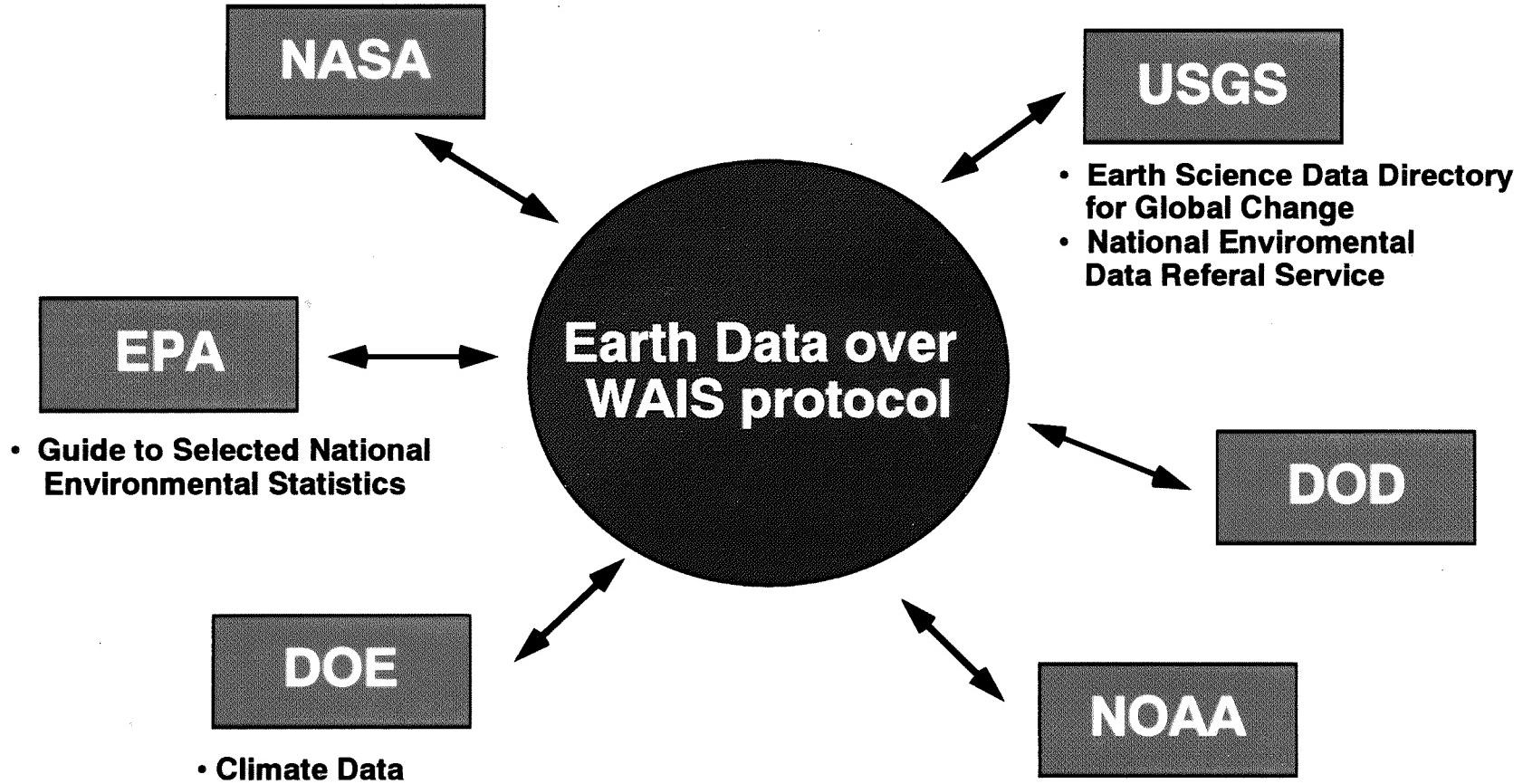
Problem with Earth data:

- Data in multiple agencies
- Data in different systems

Answer:

- Use WAIS protocol
- Data stays with creators

U.S. Geological Survey



Network Services

Problem:

- Finding resources on networks**

Answer:

- Finding People: 5 different WAIS servers**
- Finding Software: 7 different WAIS servers**
- Mailing Lists and Newsgroups: 3 WAIS servers**

Operated by Ed Vialmetti, consultant to CICNet.

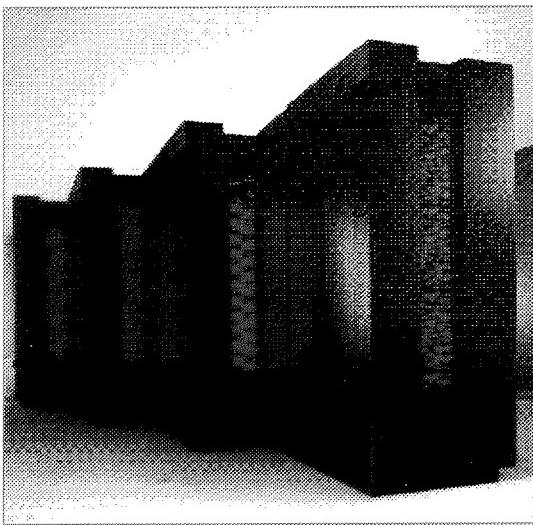
15 widely used databases, 50 total.

500MBytes Unix workstation.

500 questions per day.

10 hours/week of Ed's time.

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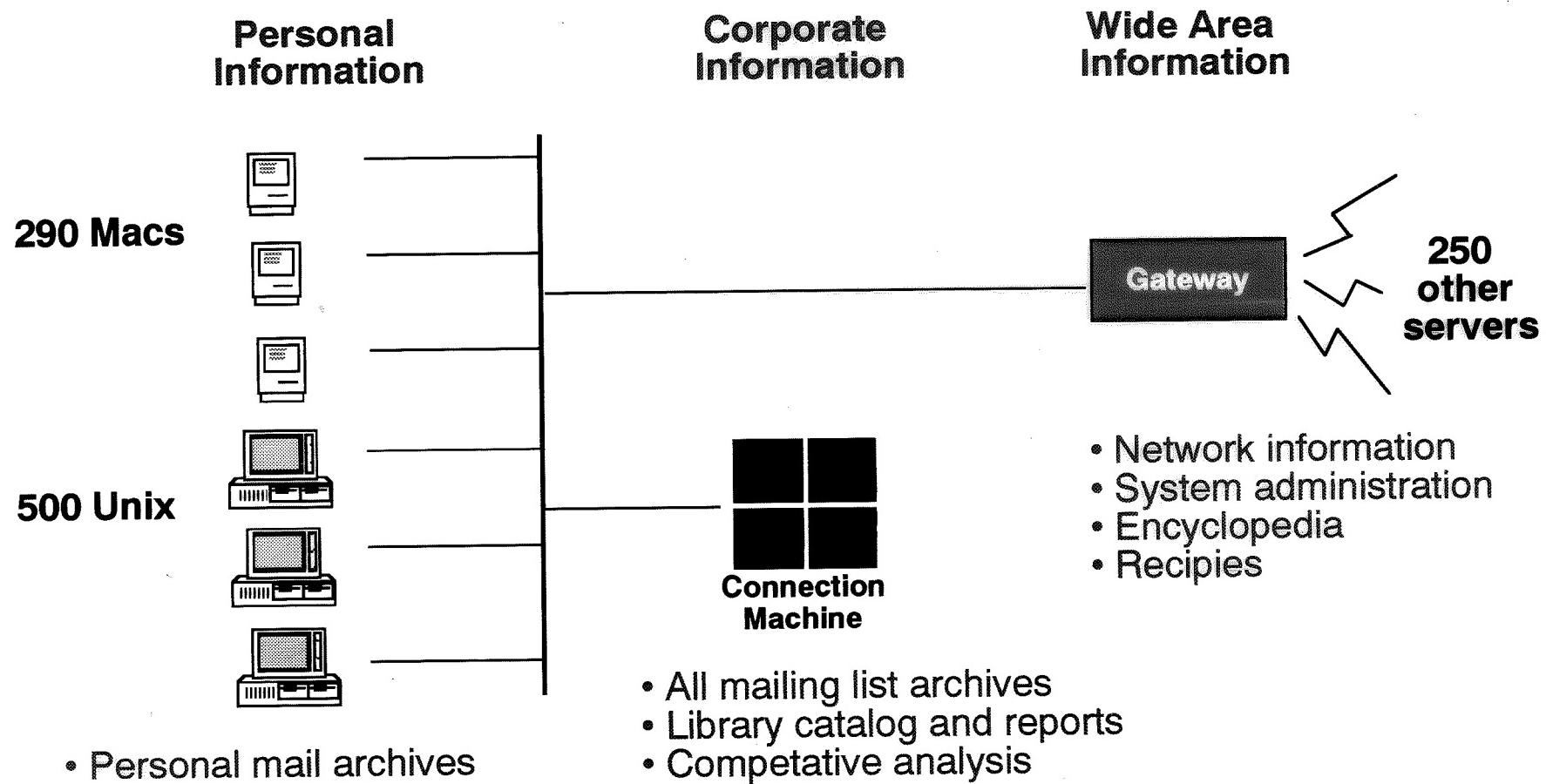
Problem:

- Keeping people informed Even though the employees are all over the world and use different machines.**

Answer:

- Use a Connection Machine as our corporate memory of company information and contacts.**

Thinking Machines System



Columbia Law Library

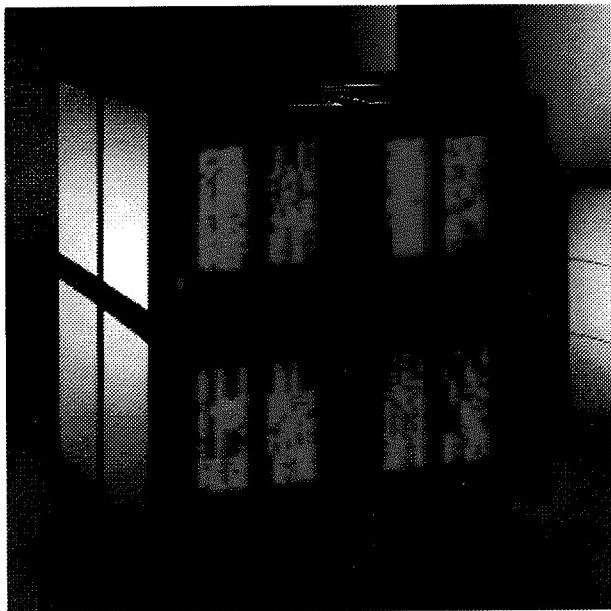
Problem:

- They need more space, but no more buildings are allowed.**
- Their students want online access.**

Answer:

- Use a Connection Machine for catalog and special collections of text and images.**
- Use direct lines to Mead and WestLaw for other material.**

Columbia Law Library System



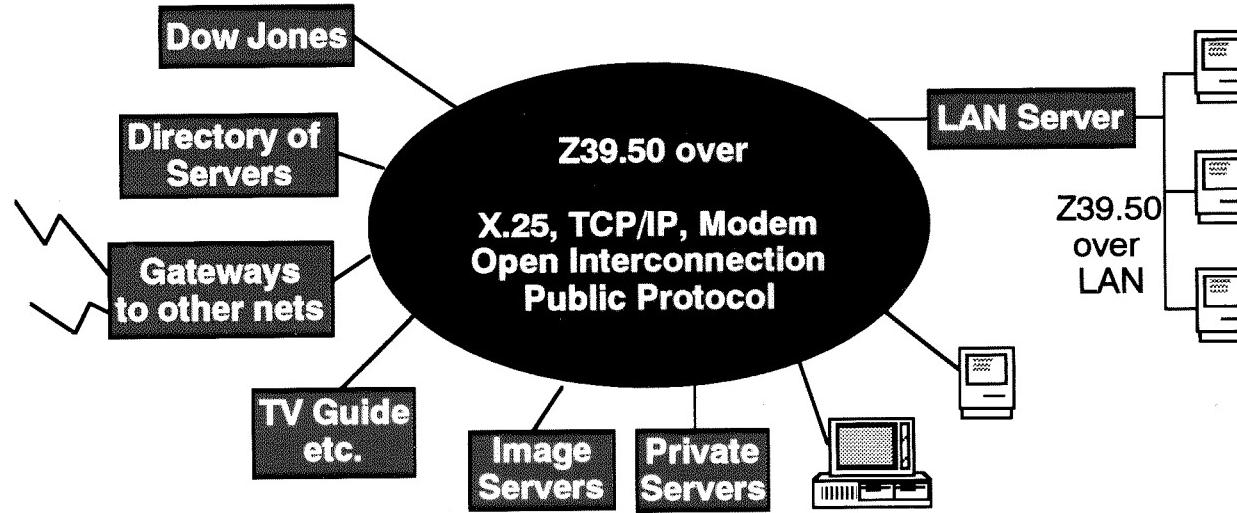
- Nuremberg Trials
- Rosenberg Trial
- United Nations Publications
- Catalog

Reference Desk

Dormitories

Campus
Networks

WAIS: Wide Area Information Servers



Easy point-and-click interface to worldwide information

WAIS on Internet



- Over 14,000 users on the Internet
- Users in 28 Countries: Mexico, Singapore, Finland, Australia, . . .
- 250 Databases served from 12 Countries: Norway, Canada, UK, . . .
New Database every day.
- VT-100 Interface in California:
240 each day, 4,600 different machines

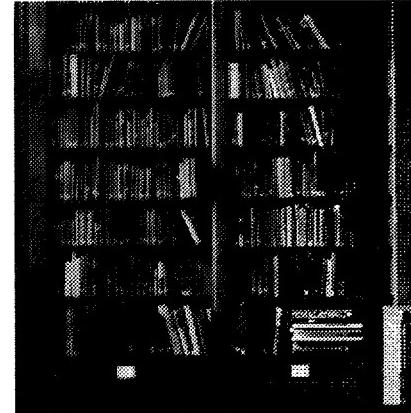
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Corporate Librarians

Old Accountants



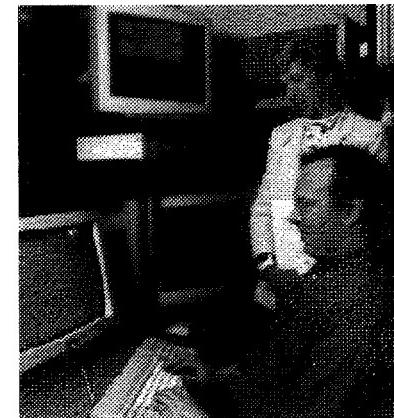
Old Libraries



New Accountants

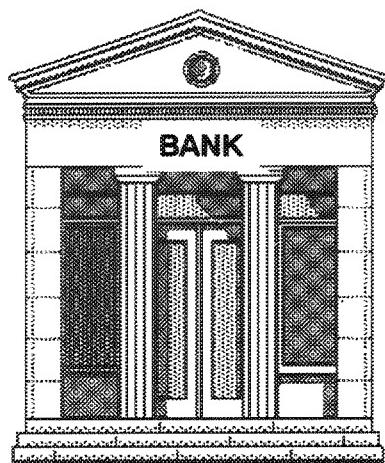


New Librarians

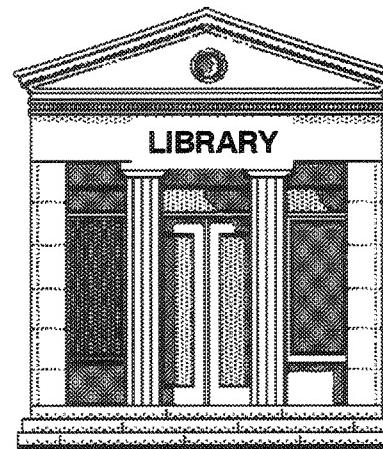
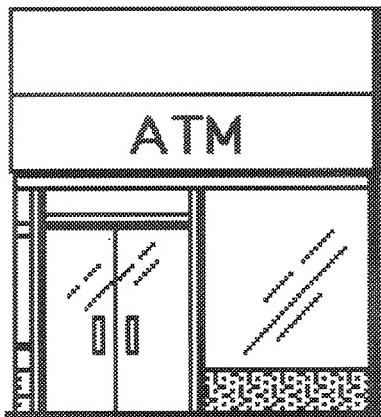


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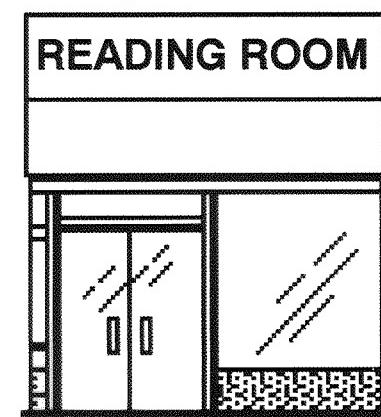
Branch Libraries become Reading Rooms



became

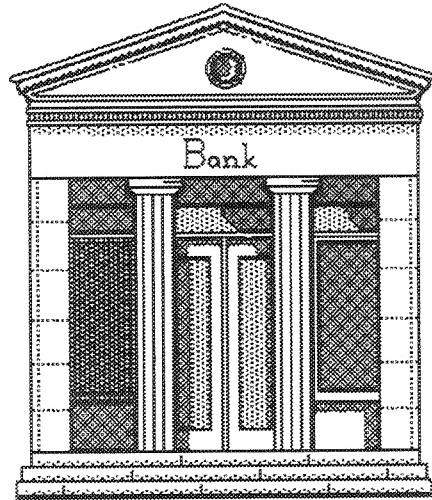


might become



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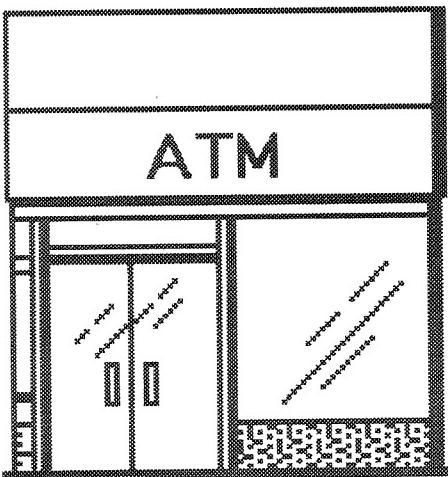
Banks: Before and After



Old Banks

- Centrally located
- Limited hours
- Local information
- Physical savings books
- Used rarely

Banks: Before and After



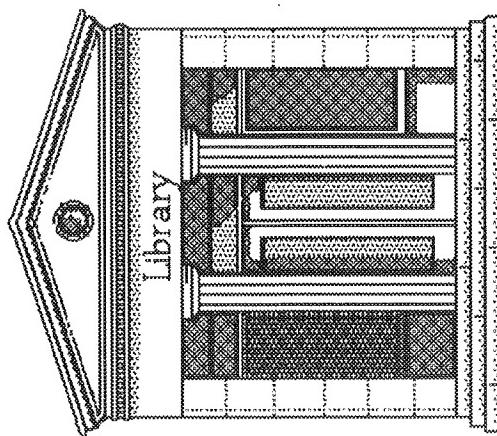
Automatic Teller Machines

- **Everywhere**
- **Available all the time**
- **Global information**
- **Access cards**
- **Constantly used**

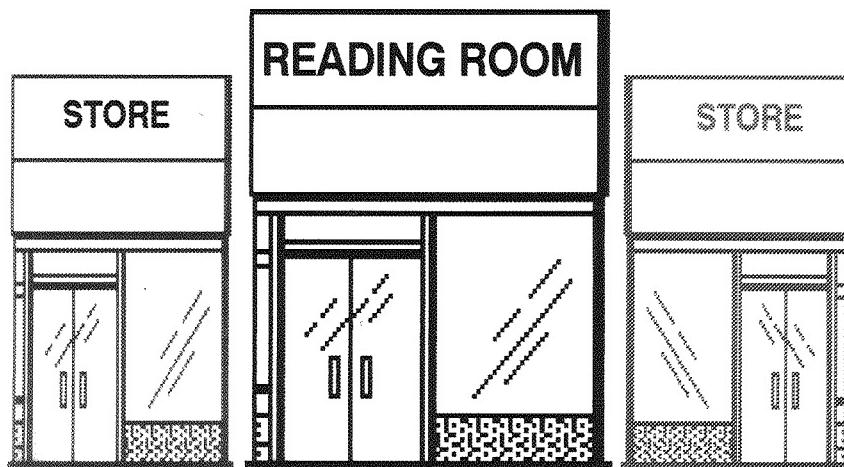
Libraries: Now and Future?

Libraries

- Centrally located
- Limited hours
- Local information
- Physical library cards



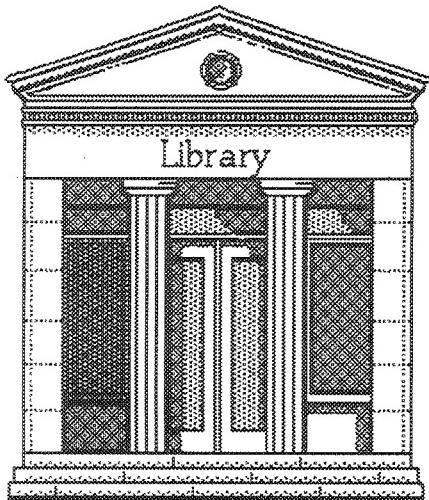
Libraries: Now and Future?



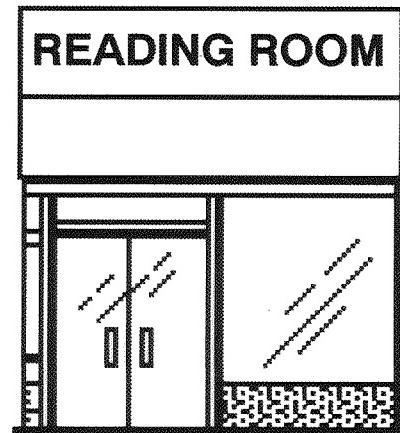
Reading Rooms

- Everywhere
- Available all the time
- Global information
- Access cards

... but still similar.



Helpful librarians
Comfortable reading chairs
Current fiction
Easy browsing



Helpful librarians
Comfortable reading chairs
Current fiction
Easy browsing

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Conclusion: WAIS Applications

- Automating the "Good old boy network"
- Corporate memory
- Virtual libraries of text and images
- Helping customer support
- Government information sharing